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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

ISABELLA, DAVID J

ART UNIT PAPER NUMBER

3738

DATE MAILED: 09/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/507,517

Applicant(s)

COPPI, GIOACCHINO

Examiner

DAVID J. ISABELLA

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 June 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

Status of the Claims

Claims 1,2,3,4,5,6,7 have been amended and claim 8 has been newly added in applicant's amendment filed on 6/22/2006.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5,8 are rejected under 35 U.S.C. 102(b) as being anticipated by Thompson et al [5906641].

Thompson et al. disclose a prosthesis for large blood vessels with all the elements of claim 1. See Figures 5 and 7 and columns 7&8 for the prosthesis comprising a main conduit having first and second ends with the intermediate tract subdivided into a plurality of small conduits located parallel one to another.

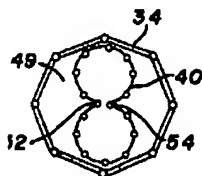


FIG. 5

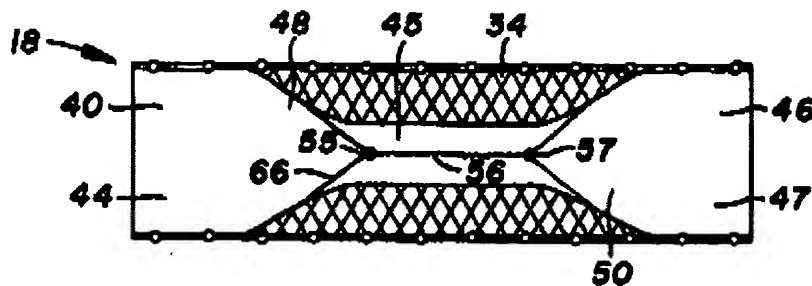


FIG. 7

Claim 2, each of the small conduits having an internal caliber that is smaller than the internal caliber of the main conduit.

Claim 3, the overall section, which is the sum of sections of the small conduits being *approximately* equal to a section of the main conduit. The word "approximately" broadens scope of the claim to include overall sections that are not exactly equal to the main conduit section.

Claim 4, the small conduits are independent one from another.

Claim 5, see figures 18 and 19.

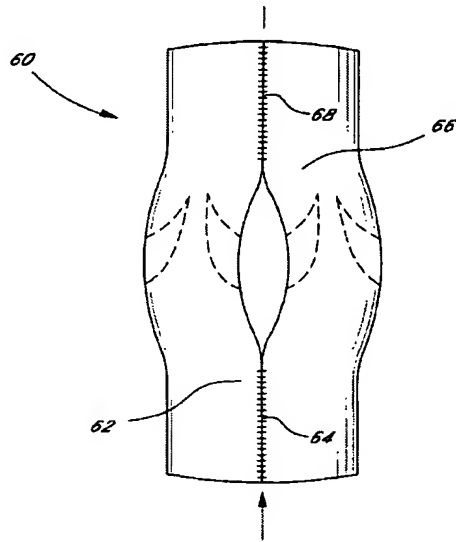
Claim 8 see first and third conduits 40 and 34 connected to smaller tubular structures 54.

Claims 1-4 are rejected under 35 U.S.C. 102(b) as being anticipated by Quijano et al [6110201].

Quijano et al. disclose a prosthesis for large blood vessels with all the elements of claim 1. See Figure 5 and column 4, lines 30+ for the prosthesis comprising a main

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conduit having first and second ends with the intermediate tract subdivided into a plurality of small conduits located parallel one to another.

**FIG. 5**

Claim 2, each of the small conduits having an internal caliber that is smaller than the internal caliber of the main conduit.

Claim 3, the overall section, which is the sum of sections of the small conduits being *approximately* equal to a section of the main conduit. The word “approximately” broadens scope of the claim to include overall sections that are not exactly equal to the main conduit section.

Claim 4, the small conduits are independent one from another.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable Quijano et al [6110201] in view of Thompson et al [5906641].

Quijano et al disclose a prosthesis for large blood vessels in figure 5 with all the elements of claim 4, but is silent to the additional limitation there being three conduits. Thompson et al teaches a graft similar to that of Quijano et al having 2 or three conduits formed extending from a main graft portion. Absence evidence of criticality, it would have been obvious to one with ordinary skill in the art, in light of the teachings of Thompson et al, to add additional flow conduits to the vessels of Quijano et al depending upon the requirements of the vascular repair of the patient.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable Quijano et al [6110201] and Thompson et al [5906641] further in view of Nunez [5800514].

Nunez et al. disclose an embodiment in Figure 16, wherein a first small conduit (730b) exhibits a greater caliber than a second small conduit (730a). Because the small conduits (730a, 730b) in Figure 16 are for the two iliac branches, and two of the small conduits (930a, 930b) in Figure 18 are also for the two iliac branches, it would have been obvious to one of ordinary skill in the art to make any one of the small conduits

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having a greater caliber than the depending upon the in vivo requirements of the patient.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable Thompson et al [5906641] further in view of Numez [5800514].

Nunez et al. disclose an embodiment in Figure 16, wherein a first small conduit (730b) exhibits a greater caliber than a second small conduit (730a). Because the small conduits (730a, 730b) in Figure 16 are for the two iliac branches, and two of the small conduits (930a, 930b) in Figure 18 are also for the two iliac branches, it would have been obvious to one of ordinary skill in the art to make any one of the small conduits having a greater caliber than the depending upon the in vivo requirements of the patient.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Quijano et al [6110201] and Thompson et al [5906641] and Numez [5800514] further in view of Greenhalgh (USPAP 2002/0058992).

Quijano et al. as modified disclose a prosthesis for large blood vessels with all the elements of claim 6, but is silent to the additional limitation of the bio-compatible material exhibiting a small elastic deformability in a transversal direction thereof and a greater elastic deformability in a longitudinal direction thereof, as required by claim 7. See column 10, lines 12-14 for the main conduit (917) and the small conduits (930a, 930b, 930c) being made from a woven biocompatible material. Greenhalgh teaches a woven prosthesis (66) for large blood vessels (70) with a main body (78) having a tract

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subdivided into small conduits (80, 82), wherein the prosthesis (600) is made from many of the same biocompatible materials as Nunez et al. See Figure 8, [0050] and [0054].

The biocompatible material exhibits a small elastic deformability in a transversal direction in region (94) (as opposed to regions 88, 90 and 92) in order to maintain its diameter under the hydraulic pressure of the blood as it is pumped through the artery and prevent the region (94) to expand and place pressure on the artery at the aneurysm. See [0044] and [0051]. Greenhalgh also teaches the biocompatible material exhibiting a greater elastic deformability in a longitudinal direction in regions (96, 98) than in regions (88, 94) in order to permit the small conduits (80, 82) to follow the curvature of the iliac arteries (72, 74) without folding on the inside of the curve or kinking on the outside of the curve. See [0052] and [0057]. It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify the prosthesis of Quijano et al. by making the biocompatible material exhibit a small elastic deformability in a transversal direction and a greater elastic deformability in a longitudinal direction according to the teachings of Greenhalgh. This will allow main body to maintain its diameter and prevent the main body from expanding and placing pressure on the artery at the aneurysm. This will also permit at least the small conduits to follow the curvature of the iliac arteries without folding or kinking.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over hompson et al [5906641] and Numez [5800514] further in view of Greenhalgh (USPAP 2002/0058992).

Thompson et al. as modified disclose a prosthesis for large blood vessels with all the elements of claim 6, but is silent to the additional limitation of the bio-compatible material exhibiting a small elastic deformability in a transversal direction thereof and a greater elastic deformability in a longitudinal direction thereof, as required by claim 7. See column 10, lines 12-14 for the main conduit (917) and the small conduits (930a, 930b, 930c) being made from a woven biocompatible material. Greenhalgh teaches a woven prosthesis (66) for large blood vessels (70) with a main body (78) having a tract subdivided into small conduits (80, 82), wherein the prosthesis (600) is made from many of the same biocompatible materials as Nunez et al. See Figure 8, [0050] and [0054]. The biocompatible material exhibits a small elastic deformability in a transversal direction in region (94) (as opposed to regions 88, 90 and 92) in order to maintain its diameter under the hydraulic pressure of the blood as it is pumped through the artery and prevent the region (94) to expand and place pressure on the artery at the aneurysm. See [0044] and [0051]. Greenhalgh also teaches the biocompatible material exhibiting a greater elastic deformability in a longitudinal direction in regions (96, 98) than in regions (88, 94) in order to permit the small conduits (80, 82) to follow the curvature of the iliac arteries (72, 74) without folding on the inside of the curve or kinking on the outside of the curve. See [0052] and [0057]. It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify the prosthesis of Quijano et al. by making the biocompatible material exhibit a small elastic deformability in a transversal direction and a greater elastic deformability in a longitudinal direction according to the teachings of Greenhalgh. This will allow main body to maintain its

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diameter and prevent the main body from expanding and placing pressure on the artery at the aneurysm. This will also permit at least the small conduits to follow the curvature of the iliac arteries without folding or kinking.

Response to Arguments

Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

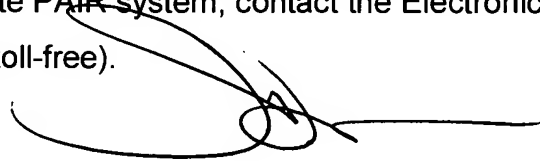
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to DAVID J. ISABELLA whose telephone number is 571-272-4749. The examiner can normally be reached Monday through Thursday and every other Friday from 9:00am to 6:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, CORRINE MCDERMOTT can be reached at 571-272-4754. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



David Isabella
Primary Examiner

DJI

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